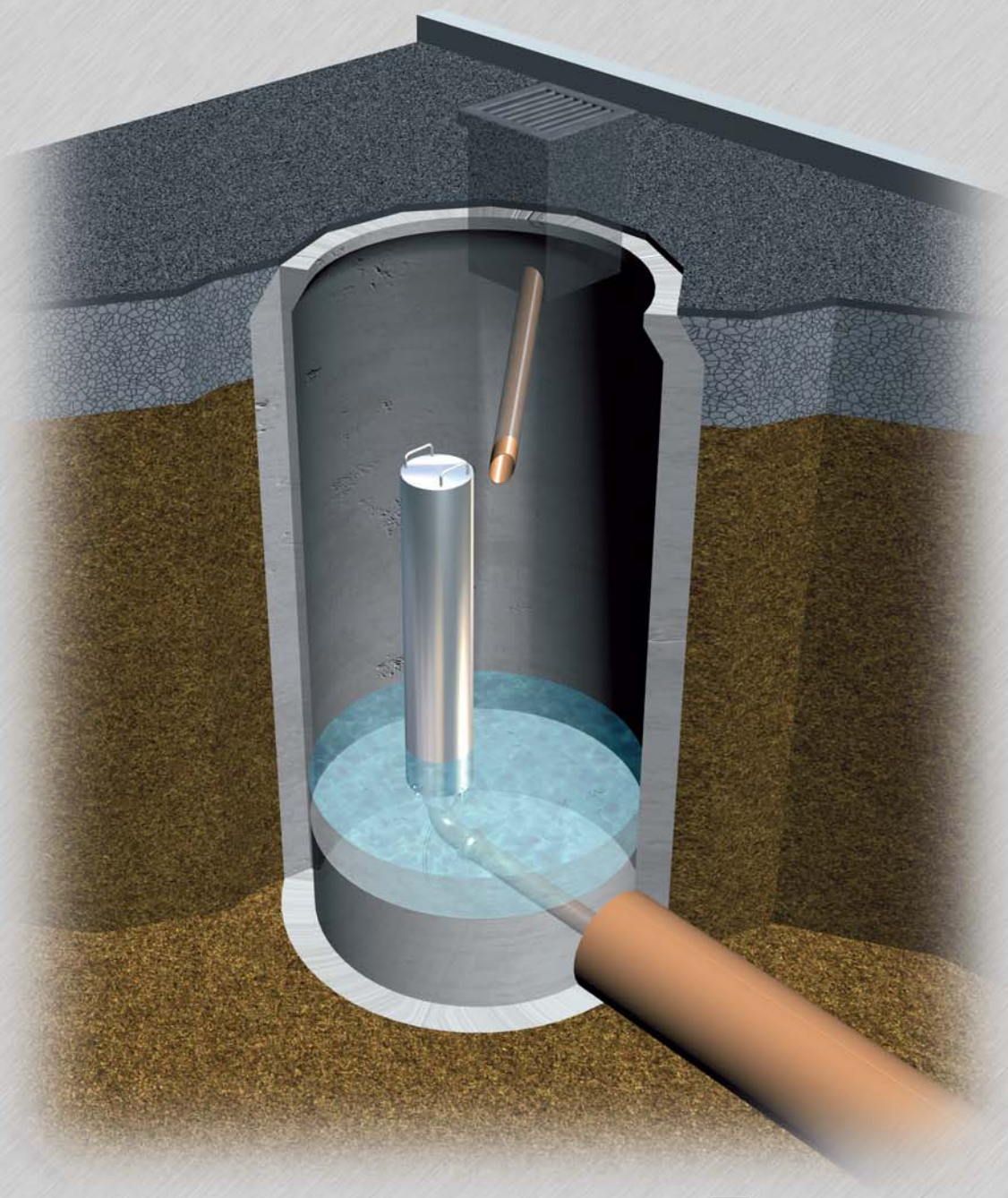
Steinhardt

HYDROFLUSH®

Sewer Flush SH

A clean solution: Automatic sewer flush - even with very light rain!



Steinhardt®

Water Technology Systems

Steinhardt HYDROFLUSH®

Sewer Flush SH

The challenge

If the shear stress is too low, sediments build up in the sewer. The wastewater meanders slower and slower through the sediments. The sediments increase until the wastewater flow is blocked. When the biogenous processes begin, the sewer stinks.

Conventional cleaning is usually done with flushing trucks. Besides the high costs of machines and personnel and the possible damage caused by hairline cracks, the sediments build up again in a few weeks and the cleaning have to be done again.

The way

Sewers have to be cleaned continuously so that sediments do not build up in the first place.

In first sewer sections the water amounts for forming a sufficient flush wave cannot be collected in short period of time because the sewage flow is very low. The collection time would be quite large such that odour problems are likely to occur. For this reason, storm water from roofs, streets, grey water, domestic/industrial water is collected in a reservoir and used for generating a long flushing wave.

The solution

A flushing shaft is set and filled with the above-mentioned water. PVC-U pipes are installed into the floor of the flushing shaft and connected with the sewer. The Steinhardt HydroFlush® Sewer Flush SH (flushing siphon) then is installed inside this flushing shaft. If required, Steinhardt can deliver a profiling aid for the flushing shaft floor and can help designing the flushing shaft.

The longer and flatter the sewer is, the more flushing water is needed. The volume of the flushing water is limited by the shaft diameter and utilized height of the flushing shaft, e.g. street inlet. The effective useable impound height results from the installation height of the HydroFlush® Sewer Flush device. It is important to create a constant and sustained flushing wave, the transport water.

The function

Mechanically pre-cleaned water flows into the flushing shaft. The water level rises. A moving overflow streams into the HydroFlush® Sewer Flush SH. When the water level reaches the top of the device, water flows over internally and starts the siphon effect, which empties the flushing shaft until the HydroFlush® Sewer Flush draws air. The water in the pipe flushes back into the flushing shaft, thereby forming an odour seal. If the flushing shaft has to be cleaned, the HydroFlush® Sewer Flush is simply taken out, the shaft cleaned and the Sewer Flush reinstalled. The Steinhardt HydroFlush® Sewer Flush operates automatically without external power.

If you wish to flush with wastewater, please ask for our special device.

- no electricity
- robust stainless steel
- collects stormwater and domestic/industrial water
- prevents odour formation
- continuous sewer flushing
- long flushing wave
- constant sustained flushing wave
- no noise
- odour seal
- low maintenance
- optional with profiling aid
- engeneering support from manufacturer

Selection table HydroFlush® Sewer Flush SH

Model	DN [mm]	Outside-Ø [mm]	Height [mm]	$Q_{average}$ [l/s]	Q_{max} [l/s]
70/200/400	70	200	400	3	5
100/250/400	100	250	400	6	16
100/250/800	100	250	800	6	16
100/250/1000	100	250	1000	6	17
150/350/400	150	350	400	11	26
150/350/800	150	350	800	11	26
150/350/1400	150	350	1400	12	27
200/400/400	200	400	400	22	39
200/400/800	200	400	800	22	39
250/500/400	250	500	400	31	51
250/500/600	250	500	600	31	51
250/500/800	250	500	800	32	51
300/600/600	300	600	600	41	60
300/600/800	300	600	800	41	60
300/600/1200	300	600	1200	43	62

Note: all dimensions are approximate

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